

## SU 1053302

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**Orthogonal signals multichannel radio-communication - by frequency modulation of walsh signals in each channel followed by time lag**

Patent Assignee: VASILEV N A (VASI-I)

Inventor: ILIN A E; VASILEV N A; ZLATI V V

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### Patent Details

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### Alerting Abstract SU A

Multichannel radio communication consisting in FM of the Walsh signals in each channel, adding and transmitting them, synch signal transmission by a separate radio channel, and received signal demodulation is enabled to increase noise-immunity, given the transmitting aerial current.

In each channel after modulation the signals are lagged for a time  $\tau_i = n\tau$ , where  $n$  - channel number. Here the protective interval ( $\tau_p$ ) between signals of different channels is less than the time  $\tau_i$  which in turn is less than the Walsh signal symbol width ( $\tau_w$ ). On reception the received signal lag is  $\tau_r = (\tau_w - \tau_i)$ . Discrete m-ary signals are frequency-modulated using trapezoidal Walsh carrier signals. Electric field strength and the received signal are proportional. The delay in individual channels results in the total mean number of total signal derivative pulses being reduced in the total signal by negative values of correlation coeffs. of the signals used, so reducing mean aerial current. Bul.41/7.11.83

**Title Terms /Index Terms/Additional Words:** ORTHOGONAL; SIGNAL; MULTICHANNEL; RADIO; COMMUNICATE; FREQUENCY; MODULATE; WALSH; CHANNEL; FOLLOW; TIME; LAG; DIVERSE

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**Assignee:** VASILEV N A (VASI-I)

**Inventor:** VASILEV N A

ZLATI V V

ILIN A E

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